

AVIATION

The Oldest American Aeronautical Magazine

SEPTEMBER 14, 1925

Issued Weekly

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The Shenandoah in flight

VOLUME
XIX

SPECIAL FEATURES

NUMBER
11

HAWAII FLIGHT
THE BOEING MAIL PLANE
THE SHENANDOAH DISASTER
COLONEL MITCHELL ISSUES STATEMENT

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under Act of March 3, 1879.



Maturity—



LEADERSHIP in an art is not to be attained over-night. An organization must grow and mature, must formulate ideals and then form the habit of making its performance match with those ideals.

The Glenn L. Martin Company organization is matured. With sixteen years of experience behind it, it functions smoothly, efficiently, accurately. There is teamwork without lost motion, continuous forward progress and unvarying dependability in its product.

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Scintilla Magneto Company
 Sydney, New York

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VOL. XIX

SEPTEMBER 14, 1925

No. 11

Success or Failure - -

of air transportation, as of all transportation, depends in the final analysis on the ability of the aircraft to transport:

SUFFICIENTLY LARGE LOADS

to provide the necessary revenue

AT SUFFICIENTLY HIGH SPEED

to have sufficient advantage over other means of transportation

AT THE LOWEST POSSIBLE COST

to attract business and make it profitable.

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6 hours fuel, 2 pilots and 2100 lbs. payload or
4 hours fuel, 1 pilot and 2600 lbs. payload
Cabin, baggage hold and lavatory, 545 cubic feet
Cruise take off—very slow landing speed

ATLANTIC AIRCRAFT CORPORATION

HASBROUCK HEIGHTS, N. J.

Manufacturers of Fokker Airplanes

"THE SAFEST IN THE WORLD"

To the Aeronautical Roll of Honor

AMID the rapidly occurring aeronautical happenings of the first week of September there was no news that brought a sharper pang than that which added to the roll of honor of aeronautics the names of Commander John Rogers, Commander Zachary Lansdowne and their aviator, Naval aviator Commander Rogers was a true aviator of the country's aeronautical progress, having been one of the first of the Navy's officers to be detailed to study flying under the Wrights. Commander Lansdowne had the distinction of making the first trans-Atlantic flight in the U.S., at commanding the first ship, that ever made before and commanding the transatlantic flight of the Shenandoah, "the most extensive operations ever accomplished by an airplane," in his own words. He was undoubtedly the most experienced shipboard commander in our air force.

The achievements of the officer personnel are well known, but those who have an intimate knowledge of the operation of all aircraft know that the officers are the first to give full credit to the enlisted personnel for the successful accomplishment of important missions. The men that made up the crews of the PS9 No. 1 and the Shenandoah were the most expert operators in the Navy in their work. The loss of such crews is almost irreparable.

The sadness that has been in the hearts and minds of the aeronautical world will be borne with that courageous fortitude that comes from a knowledge that the lost words of those who are overheard in the course of our progress would be, if they could make them known, the ever present sentiment of all aviators—"Clarry on."

Take Aircraft out of Politics

BODIES of experts will give their opinions as to the technical reasons that caused the loss of the Shenandoah and the PS9 No. 1, but no investigation will probably be made as to how much of these losses was due to the greatest danger to our development—politics and propaganda. The political pressure that has been brought to bear on our services has the air of government aircraft propaganda purveyors will, when it becomes known to the country and Congress, cause a revulsion of feeling that will start the recovery from technical matters to what should be termed the real cause of some of the recent aeronautical accidents. The Army and Navy are publicity mad, and so much is too great to take to spread propaganda that may have a favorable effect on appropriations. When these efforts succeed, or have so far to spend more propaganda that fits in with unscrupulous editors and news ideas.

The Secretary of the Navy, only a few hours after the ship had floated to the ground and before receiving any reports from a technical investigation, and when the whole country was horrified and mystified, sent his statement concerning the wreck to spread propaganda for the old naval idea. He is quoted as stating:

"In view of the experience of the Navy planes in the Arctic expedition, the failure of the Shenandoah flight and the Shenandoah disaster, we have come to the conclusion that the Atlantic and Pacific are still our best defense. We have nothing to fear from enemy aircraft that is not on this continent!"

When the last trip of the Shenandoah is considered from this viewpoint, the ultimate responsibility for this great loss to the Navy may perhaps be better understood. The trip was originally planned to bring out the crew with President Coolidge was visiting Alaska and create a favorable impression for the Navy and the administration in the most doubtful section of the country, politically. When the Los Angeles failed to make the trip at a time of year that shipboard experts knew was dangerous, the Shenandoah was ordered to cover the middle west and visit Detroit with the hope that Henry Ford could be persuaded to build an airplane hangar at Dearborn to supplement his racing track.

It can be stated with direct knowledge, not hearsay, that Commander Lansdowne, who wanted to demonstrate the real value of the Shenandoah with the fleet, the real purpose of the investment of over \$15,000,000.00 of public funds in the Labrador project, was so proved by accidents made in Washington, to attend Congress' meetings in Maine, was taught for anti-aircraft propaganda and make the Western propaganda trip that he was discredited. If the plan of the Navy Department was ever made public by a Congressional investigation, the political pressure would have the Shenandoah visit various sections of the country with the known. And then it can be determined how much of its time the only ship that the country had that could be said for saved was being used for propaganda purposes, and how much with the fleet.

The West Coast-Alaska Flight was planned, as everyone in the service knows to offset the impressions created by the Atlantic World Flight. With the aid of far removed appropriations, some outstanding achievement had to be planned before Congress met in December. Two airplanes were built at the Naval Aircraft Factory and one by the Boeing Company. The desire to have the government built airplanes get the credit of this longest non-stop flight over water caused the Navy to have only six priorities and not priorities from the air that would come from having three planes flying together in one hour in the Round the World flight. Certainly no one will believe that the delay of the few days required to replace the engine in the Boeing plane would have impeded the success of the trip.

If the savings that is secured as the result of an investigation of these experiences in the taking of aircraft out of politics, and stopping there with far propaganda, those who are looking forward to the coming of commercial aviation will feel that at least one lesson has been learned. The Air Mail carries only the mail, and has no respect of the whole world. It lets the Army and Navy do their propagandizing in news, political flights, and appropriation propaganda.



Photo by Pacific & Atlantic

TIME OFFICERS AND CREW OF THE SHENANDOAH

seen on the country roads, and as dusk falls lights may be seen for great distances on the mountain tops.

"9:58 p. m.—Narrow band of light across the sky, west of the world from Europe and various points in North America. News is flashed to members of the crew.

"Chamberburg below looks like a pretty under a Christmas tree, and on thick of the holiday at home and wonder if they are all asleep. These knots to Tom and Billy from the ship in the air.

"Deep valley and high mountains great on, but as long as we stay up, we should worry about what is below us. Day lightning to the south of us, but the sky is clear and we can see the earth below without trouble.



From Ship's View

WHERE THE BEAR SECTION LANDED. Circle 1 shows where the control and radio car and the control section fell. Circle 2 indicates the spot where one of the engine cars was found. The view was taken looking up the river valley from the ship.

The same points in the compass rose above.

"Crossing Pennsylvania and its beautiful farms, but we cannot see their beauty owing to the darkness, but hope for better things tomorrow, when we can see the earth.

"Strike railroad highway line near Uniontown and our bearings show that we are on line in advance of proposed railroad. Everything working fine. Radio probes connect from Pittsburgh and Cleveland, which are judged by the crew.

"1:15 a. m.—Two over Washington, Pa., and come down a little swing to the lower hills and mountains and find darkness is increasing. The bearings and find that we are in direct line for Wheeling, where we have orders to drop and circle city if weather permits.

"1:25 a. m.—Get glimpse of lights from Wheeling Station in the distance and put our course across center of city as we drop and decide that circling is not practical, owing to dense visibility.

"1:55 a. m. (standard time)—Two over Wheeling and cross Ohio River, being greeted with salutes and bells as we cross city and view red towers set off on top high hills. We return home by lighting up the ship from stem to stern.

"3:10 a. m.—Follow valley westward through Ohio and our lightning flashes directly ahead. The hills shorten and find that visibility is bad.

"3:20 a. m.—Gleam strong head wind and see storm bells northwest and southeast in distance. Before that we see ridges then without trouble and hear whistle westward.

"3:15 a. m.—Storm increasing in intensity and ship pitches heavily. From over Lake Erie, Ohio, and over Cleveland, northeast to avoid storm direct ahead.

"3:50 a. m.—See Cambridge in distance and make little landing as result of strong head wind. Storm worst we have encountered to date.

"4:20 a. m.—Two over Reynolds, Ohio, after landing there cover half hour and decide to steer north to get out of direct wind. Trouble with radio, we not pick up messages—effort to repeat it unsuccessful.

"4:50 a. m.—Members of crew called from position get and sent into runway to soil in keeping ship on even keel. Cameramen taken over in changing course. All engines working perfectly, unable to pass landings in wind. Lightning increasing in intensity. Hope to rise out storm soon. (Unable to get radio in function.)

"Fluorescent city seen in distance, observations taken; all course thirty miles south.

"Order to three of gasoline tanks given and complied with, but does not cut stability. Radio no longer, wind increasing as visibility gets chance to rise.

The altitude was never completed.

The barograph, which was salvaged, gives a further insight into what actually happened. A thin blue line on the

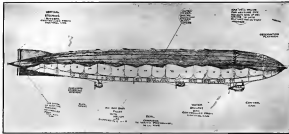


DIAGRAM OF SHENANDOAH. This drawing shows the interior and location, mostly in all. The middle engine room, which was located higher than the last, are indicated by a dotted profile and you will see. The forward engine room is at the rear section. Note of gas cell 18.

barograph chart, which was the third one used after the ship left Lakeland, shows the Shenandoah's even trail through Eastern Ohio. It shows a little "weather" somewhere between Wheeling, W. Va., and Cambridge, Ohio.

According to time calculations, the ship was encountered while the ship was approaching Cambridge at about 4 a. m. A sudden change of atmospheric conditions is shown. The temperature fell from 72 deg. to 66. The baro then shows that the ship rose first to a height of 1500 ft. For a time it remained at this elevation. Again it shot upward. This time it reached about 2000 ft. Then the ship dropped a little lower the earth.

The barograph of the recording gun at this point was very violent. They show that the ship shot upward and to a height

of about 2000 ft. It held there for a second or two and then plunged down so rapidly that the gas did not even register on the chart. This presumably made the moment at which the control car became detached from the hull, and fell to earth. At several points the gas dug into the graph paper and its record ended with a scattering of dots and scratches over the bottom edge of the chart. The sensation and blots tell the story of the crash of the marauder. The speed of the fall was too great for the instrument to record.

It would seem that the Shenandoah was caught in a corner storm of the gas type, the presence of which she had not been warned of previously. It is known that such a storm is characterized by very rapid vertical currents of considerable speed and the presence of these could be re-

PHOTOGRAPHS OF SOME OF THE LOST OFFICERS

Lt. Comdr. Zachary Lansdowne

LANSDOWNE, ZACHARY, in Grade, U. S. N. Born, Shenandoah, Ohio, Oct. 4, 1891; son of James William Lansdowne and Elizabeth (Kane) Lansdowne, married, American citizen, 1912.

Graduated U. S. Naval Academy, 1912. Graduated, 1912, with rank of ensign. Served on USS Albatross, 1912-13; USS Albatross, 1913-14; USS Albatross, 1914-15; USS Albatross, 1915-16; USS Albatross, 1916-17; USS Albatross, 1917-18; USS Albatross, 1918-19; USS Albatross, 1919-20; USS Albatross, 1920-21; USS Albatross, 1921-22; USS Albatross, 1922-23; USS Albatross, 1923-24; USS Albatross, 1924-25; USS Albatross, 1925-26; USS Albatross, 1926-27; USS Albatross, 1927-28; USS Albatross, 1928-29; USS Albatross, 1929-30; USS Albatross, 1930-31; USS Albatross, 1931-32; USS Albatross, 1932-33; USS Albatross, 1933-34; USS Albatross, 1934-35; USS Albatross, 1935-36; USS Albatross, 1936-37; USS Albatross, 1937-38; USS Albatross, 1938-39; USS Albatross, 1939-40; USS Albatross, 1940-41; USS Albatross, 1941-42; USS Albatross, 1942-43; USS Albatross, 1943-44; USS Albatross, 1944-45; USS Albatross, 1945-46; USS Albatross, 1946-47; USS Albatross, 1947-48; USS Albatross, 1948-49; USS Albatross, 1949-50; USS Albatross, 1950-51; USS Albatross, 1951-52; USS Albatross, 1952-53; USS Albatross, 1953-54; 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William Jones, the first gunship, 203 entered on southwest of San Francisco.

The original message from the William Jones made known of only the P39 No. 3, but a message received a little later said that both of the aircraft had been seen.

The two airplanes were flying seven miles apart, one being to the right and the other to the left of the station.

The planes passed out of sight of the William Jones at 1:15 p. m., being lost in the haze to the south and west. They were flying at an elevation of about 700 ft.

Just 15 min after the planes disappeared from the sight of the William Jones, the aircraft got in touch with the McCleary by radio and obtained compass bearings. The message conveying this information was the first received from the McCleary, estimated 400 mi. from San Francisco.

400 Mile Ship Passed

The P39 No. 1 passed the destroyer McCleary, 400 mi. out, at 4:46 p. m. A report from the P39 No. 3 was received immediately from the McCleary.

Comdr. John Rodgers, flight unit commander, sent a wireless message to the destroyer McCleary which said:

"Excellent flying job and we are O.K."

Comdr. John Rodgers had been in the flag plane of the flight Unit B. J. Connell as second pilot of that plane and

navigation officer for the entire expedition. Lieutenant Connell, one of the Navy's finest navigators of war years, was an expert with the earth-observer equipment, an instrument which calculates the earth's magnetism to keep it on its course. A polarimeter mounted in the navigating cockpit takes readings of the variation created by a constantly curved electromagnetic course into conflict with the normal laws of magnetic force about the earth as the plane veers from point to point.



Photo Foreground—The flag ship and control system of a P39

With the destroyer McCleary following astern, the arrival of the P39 No. 3 following shortly upon the heels of the other ship the P39 No. 1, were most strongly by radio to the effect that trouble with the power plant had forced Lt. Alvin Beach, in command of the airplane No. 2, to night in the water at a spot between the first two jetties, and some 300 mi. off the coast of California.

The destroyer (Hawley) was immediately sent out to the rescue and succeeded in towing the crippled airplane back to the Golden Gate Bridge. Information will be made known to the cause of this continued resistance to early in the course of the expedition but the plane was successfully salvaged and repairs made in part at least.

The presence of the P39 No. 1 in its condition flight across the Pacific was successful and up to schedule until all news of her whereabouts could shortly after had reported passing the destroyer Furmang, the third patrol ship out

from the terminal end of the flight. The progress of the flight may be traced through from the radio reports received from patrol ships along the route. Leaving San Francisco at 1:48 p. m. on the day of the first patrol ship, the first patrol ship, the William Jones, stationed 200 mi. out from the coast, at 3:36 p. m. The second patrol ship, McCleary, 400 mi. out, was passed at 5:08 p. m. Continuing on the third patrol ship the Mayne and passing this at 12:35 p. m. the P39 No. 1 had then covered 600 mi. of the flight. No reports were received as to when the plane passed over the destroyer Gray marking the 800 mi. point but the plane was passed at 4:45 a. m. on Sept. 13, thus marking about the half way point in the flight. The average speed of the airplane between ships which up to this point had been approximately 50 m.p.h. and by this time amounted to an approximate 55 m.p.h. maintaining this average speed until the airplane carrier Langley was reached at 7:39 a. m., having then covered 1200 mi. The time, the aircraft passed ship stationed at a point 1600 mi. from the Astoria coast was passed at 10:27 a. m. and the last reports received. Commander Rodgers were received as the P39 No. 1 passed over the destroyer Furmang at 1 p. m. having then covered 1600 mi. of the flight and having then had 500 mi. further to go.

1600 Miles Flown

The Furmang in the third patrol ship out from the island of Maui, and a 1600 mi. from Kohala, on the northern coast of the island of Maui. There are two other patrol ships between the Furmang and Kahala: they are the Tanganyika, 70 mi. out, and the Anconito, 150 mi. farther out.

From 1 p. m. on no further reports of the flag plane were heard and a distress signal was sent broadcast across the vast ocean. The weather was bad, the wind which had been against the mission was high, and the sea rough.

The gloomy view of the prebent of Comdr. John Rodgers, U.S.N., and his four navigators, was based on official reports received from ships in the path of the airplane, P39 No. 1. The reports all pointed the same doubtful fact, that the airplane were lost, untraceable in the darkness.

Throughout the hours of darkness, however, plans for rescue of the airplane, should they be found and lost, were brought to completion. The island of Hawaii, northeast of the Hawaiian group to the point the PW plane was believed to have dropped into the Pacific, was designated as the rescue base. Attempts to locate the airplane ships in the vicinity to start at dawn on a systematic search of the coastline between the twenty-first and twenty-third parallels of latitude and the 152d and 153d meridians of longitude.

Search Started

At the first indication of dawn airplanes and surface craft moved out into the Pacific ready to search for the missing airplane.

Strong winds had retarded the speed of the airplane and forced extraordinary use of the auxiliary power supply. Shortly after noon Commander Rodgers reported by radio that his fuel was running low. Two hours later and after a number of messages saying it would be forced to alight, the airplane's radio was silenced.

By that time news was falling steadily in the vicinity of the airplane. Visibility was bad. The ships which started out to resume the stricken airplane found themselves hampered by the overcast night and lost of definite bearing showing the location of the lost plane.

With the destroyer Furmang, the Anconito, kept the night moving in the area 300 mi. off Honolulu, striking the sea in the vicinity where the missing plane might have dropped crashed.

A message received from the missing plane after the craft indicated that it was trying to resume in the air and the destroyer power supply was exhausted, said—

"What is wrong, please? Do shed it" meaning that the Anconito should proceed furnishing compass bearings to the P39 No. 1. To this message, the Anconito answered: "What is your course and are you trying to find us?" To this message there was no answer.

With signals breaking over as already storm tossed, was

four was felt that the P39 No. 3, flag ship of the San Francisco Hawaiian flight, with two crew of five men aboard, had been captured in waves by heavy seas. Comdr. William B. Van Arman, of the plane tender Anconito, who, with the main searper Tanganyika and the destroyer Furmang, was leading the search, reported shortly after midnight that the plane was crashed, the crew missing and signals breaking. The wreckage was visible about, using searchlights to 600 in the last for the missing plane. It was estimated at that time that the P39 No. 3, was probably drifting at about 5 m.p.h.

Meanwhile a squadron of about a dozen destroyers, which had been cruising in the vicinity of Pearl Harbor, swung into a fan-shaped formation and proceeded back over the scene where the missing plane was taking view from down. In addition to the destroyers, three other planes from Pearl Harbor took up the search. Three warships from the line of flight guard went of the island of Maui, joined in the search but by an early hour on Sept. 14 all news of the unfortunate aircraft and their plane was forthcoming.

The last messages received from the airplane were not sufficient to express much confidence that the world is able to track the shadow of the Island of Maui, the intended landing "We will stick up if we have to land in this rough weather with no motor power," said one message from the plane in the Anconito, which then was on station 1800 mi. from the California coast and less than 500 mi. from Honolulu, the intended destination of the flight.

Another message said: "Are you in the rear?" The Anconito replied affirmatively.

Last Messages

The first message of actual distress was transmitted at 1:15 p. m. when the airplane commander, John Rodgers, broadcast the following to all Navy ships in the vicinity: "Please report loss on position and double efforts to reach destination. Keep coastal bound."

The next message was addressed to the Tanganyika, reading: "Please keep good watch. Gas is about all gone. Think it impossible to get in."

"Hanging out of fuel. Will probably have to land at Anconito, or Tanganyika, please advise."

"Please lose last. Awaiting message from Anconito."

The last messages intercepted were fragmentary reports for radio compass bearings from the Anconito and the Tanganyika.

Then, without a moment, the last news of the three, who had all not communicated their report, was driven to a close. An orderly system of search was organized and its limits extended both north and south in an effort to reach the possible location of the plane, and thus make the necessary showman for the drift of the airplane, should the have been drifting peacefully over the water.

With the dawn, new, all hope of even finding Commander Rodgers and his fellow men have almost ended. Weather conditions had been against them almost from the start and defied their progress, causing the extraordinary expenditure of fuel as a result of the strong adverse winds. The progress of what last reported was two hours later on schedule and with the weather continuing to get worse, little hope of their



Commander John Rodgers

RODGERS, 1908, September 1, 2 years, long, 5'10", 150 lbs., 1911

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